

# INTERNATIONAL SEARCH REPORT

PCT/IB2004/050050

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G11B20/00 H04N1/32 G06T1/00 H04N7/26 H03M13/19  
H03M13/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04N G06T

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data, INSPEC

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	KALKER T ET AL: "Capacity bounds and constructions for reversible data-hiding" CONFERENCE PROCEEDINGS ARTICLE, vol. 1, 1 July 2002 (2002-07-01), pages 71-76, XP010599690 EINDHOVEN, THE NETHERLANDS	1-9
A	the whole document column 9, line 15 - column 10, last line	1-9
X	M. VAN DIJK, F.M.J WILLEMS: "Embedding Information in Grayscale Images" PROCEEDINGS OF THE 22ND SYMPOSIUM ON INFORMATION THEORY IN THE BENELUX, 15 May 2001 (2001-05-15), pages 147-145, XP002277445 ENSCHEDE, NETHERLANDS page 147, line 11 - page 148, line 11 page 150, line 14 - page 151, line 14 ----- -/--	1-9



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

### \* Special categories of cited documents:

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the international filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

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\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*G\* document member of the same patent family

Date of the actual completion of the international search

21 April 2004

Date of mailing of the international search report

14/06/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax (+31-70) 340-3016

Authorized officer

Rydyger, K

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	WO 03/107653 A (KALKER ANTONIUS A C M ; KONINKL PHILIPS ELECTRONICS NV (NL); WILLEMS F) 24 December 2003 (2003-12-24) page 1 - page 15	1-9
A	FRIDRICH J ET AL: "Lossless data embedding for all image formats" PROCEEDINGS OF THE SPIE, SPIE, BELLINGHAM, VA, US, vol. 4675, 2002, pages 572-583, XP002275676 ISSN: 0277-786X cited in the application page 572, line 1 - page 577, line 8	1-9
A	FRIDRICH J ET AL: "Lossless Data Embedding New Paradigm in Digital Watermarking" EURASIP JOURNAL OF APPLIED SIGNAL PROCESSING, HINDAWI PUBLISHING CO., CUYAHOGA FALLS, OH, US, vol. 2002, no. 2, February 2002 (2002-02), pages 185-196, XP002254473 ISSN: 1110-8657 cited in the application page 1 - page 2	1-9
A	US 6 456 726 B1 (LI XIN ET AL) 24 September 2002 (2002-09-24) figure 3 column 1 column 4, line 44 - line 62	1-9

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Patent document cited in search report		Publication date	Patent family member(s)		Publication date
WO 03107653	A	24-12-2003	WO	03107653 A1	24-12-2003
US 6456726	B1	24-09-2002	CN	1399765 T	26-02-2003
			EP	1256086 A1	13-11-2002
			JP	2004500677 T	08-01-2004
			WO	0131565 A1	03-05-2001